

December WyoLink Operations Work Group Report
Presented in Casper, WY December 12, 2006 by Jerry Kennedy

As you remember at our last PSCC meeting held in Riverton on September 26, 2006 the Laramie County Public Safety Agencies request for coverage was referred to the Operations Group. We planned a meeting on Oct. 23, 2006, but we had 2 people who could not attend that meeting, Mark Harshman and Dan Perko so the meeting was postponed and a meeting was set up for Oct. 30. We went over the coverage request in Area D in which they needed better coverage and after a lot of discussion it was realized that a lot more funding would be needed to cover that area. Discussion led to estimate figures in the 5 to 6 million dollar category would be needed for this coverage. There was one more comment that was raised about another large sum of money that was not okayed in the PSMC plan and was ignored by the group.

We all know that this magnitude of funding is not possible from WYOLINK.

Motorola was to look into a strategy plan where transmitters could be located to cover Area D and the costs associated with it. The meeting was adjourned awaiting information from Motorola. In an e-mail from Pat Byrne on Dec. 7, he stated that they were waiting for input from Motorola and, as he understood, that would not be done until January 1, 2007.

In going over records from a Project Meeting November 27 it states that "there are a number of issues around this that will postpone action on the issue. This issue will be resolved with the City of Cheyenne and Laramie County no longer an active project issue" "action-- Cancel".

None of this information came before the WYOLINK Operations Group, as well as several other issues, that I feel should have appeared before us. I do not know who is responsible for this, I do not know what is true, I just know that this authorization did not come from the Operations Group nor from Mr. Pat Byrne.

It is my feeling that we need to make sure that the State Buildings in Cheyenne have good radio coverage for the protection of the State's personnel and investments. Marty McCoy has promised to check out some areas after the WYOLINK office move is completed and time is available.

Jerry M. Kennedy,
Chairman of Operations Group

Spectrum Workgroup Report

December 12, 2006

1. FPIC Interoperability Assistance Work Plan

The Federal Partnership for Interoperable Communications (FPIC) released a draft "Interoperability Assistance Work Plan for the State of Wyoming". (Please see attached) The draft states that FPIC will provide 25 mobiles and 50 handhelds to be used by Federal users on the Wyolink System. In return FPIC would identify and coordinate available Federal frequencies for use by the Wyolink System. They will also help us setup encryption key management for the Wyolink System. Today at 7:30 AM, FPIC discussed the revised Interoperability Assistance Work Plan for the State of Wyoming. plan.

2. Midwest Interoperability Summit

Bob Symons and I were invited to attend the Midwest Interoperability Summit October 26-27, 2006. Eleven States attended this summit and gave a brief presentation on what the states were doing to improve interoperability. The three bordering States to Wyoming that attended the summit were Montana, Nebraska and South Dakota. Montana and South Dakota either have or will have a VHF Trunking Systems in their States. This presents an opportunity to coordinate frequency usage and Trunking System Interoperability between these States. Nebraska is leaning toward use existing 800 MHz frequencies for handhelds and VHF for mobile radios and not going to trunking. They are trying to coordinate the usage of existing frequencies throughout the state using regional areas of common interest. All Public Safety frequencies will be networked to a central Network Operations Center. There is limited opportunity for Trunking Interoperability but there will be a need for frequency coordination. The other issues discussed were common channel nomenclature, federal interoperability and disparate band interoperability.

3. 700 MHz Regional Planning Committee Meeting

Please see attached.

4. 800 MHz Regional Planning Committee Meeting

Please see attached.

5. Civil Air Patrol New Frequencies

A request was made by WYDOT to see if the Spectrum Workgroup could get a copy of the new frequencies issued to the Civil Air Patrol. There was a concern that these new frequencies might interfere with WYDOT's frequencies. The Spectrum Workgroup received these new frequencies from the National Civil Air Patrol Headquarters and they were forwarded to WYDOT.

JANUARY 2006

	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	454	134	10	32	53	0	1	31		715
TRAFFIC	5711	588	215	332	665	0	0	296	2	7809

FEBRUARY 2006

	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	375	103	1	27	26	0	0	22	0	554
TRAFFIC	5237	409	134	368	469	0	0	218	2	6837

MARCH 2006

	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	353	143	12	21	56	1	0	44	0	630
TRAFFIC	4171	468	171	269	522	8	0	377	1	5987

APRIL 2006

	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	405	232	14	12	82	2	0	39	0	786
TRAFFIC	5180	682	192	184	850	10	0	343	2	7443

MAY 2006

	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	529	351	20	28	278	0	0	33	0	1239
TRAFFIC	6668	1095	293	435	2903	0	0	384	7	11785

JUNE 2006

	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTAL
EVENTS	614	364	15	36	411	0	0	35	0	1475
TRAFFIC	5844	1089	233	317	4000	0	0	330	2	11813

JULY 2006

[illegible]

EVENTS	794	332	18	31	530	0	0	64	0	1769
TRAFFIC	7115	1102	230	399	4676	0	0	600	4	14126
AUGUST 2006										
	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	625	377	15	28	223	4	0	47	0	1319
TRAFFIC	7015	1235	192	279	2399	21	0	441	5	11587
SEPTEMBER 2006										
	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	966	390	10	29	165	0	0	35	0	1595
TRAFFIC	8102	1385	172	291	1539	2	0	318	15	11824
OCTOBER 2006										
	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	1333	351	20	37	19	0	0	18	0	1778
TRAFFIC	10769	933	190	391	398	0	0	230	7	12918
NOVEMBER 2006										
	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS										0
TRAFFIC										0
DECEMBER 2006										
	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS										0
TRAFFIC										0
ANNUAL TOTALS FOR 2006										
	GAME & FISH	BRAND	LIVE STOCK AGENTS	BLM	STATE PARKS	OUT FITTERS	SDCI	FOREST	OT	TOTALS
EVENTS	6448	2777	135	281	1843	7	1	368	0	11860
TRAFFIC	65812	8986	2022	3265	18421	41	0	3537	47	102131



*Wyoming's Statewide Public-Safety
Interoperable Radio Communications System*

Project Manager's Report to the PSCC

Date: December 12, 2006

Mr. Chairman,

The WyoLink project is moving forward by wrestling with the challenges inherent in such a large and complex communications project.

FREQUENCY PLANNING

Motorola has completed engineering of the WyoLink frequency plan. Application documents are being assembled. This is behind the original schedule. To address this risk, Motorola is working with the combiner equipment supplier to pre-build equipment so the delivery will allow work to proceed in the next construction season.

Some project risk is still associated with the frequency plan. As has already been reported, WyoLink will be applying for frequencies in several different FCC services, not just the Public-Safety service. The first risk is that the FCC would not grant the waivers necessary for using frequencies from other radio services. I believe this is a small risk. I have had positive discussions on the subject with FCC representatives and there is precedent of such waivers being granted to other states. The second, and more significant, risk is that the Frequency Coordinators for the other radio services would rule against the individual applications. The best mitigation against this risk is the quality of engineering that Motorola has used in selecting the frequencies, the recognized priority of public safety communications, and constructive dialogue with the Frequency Coordinators that will support the process. Federal frequencies remain a contingency against both risks.

Based on the current state of the frequency plan and the offer of federal spectrum to address deficiencies, I am optimistic about final success in time to activate the Phase-2 and Phase-3 sites during the coming construction season.

ZONE 2 & ZONE 1 VERSION UPGRADE

Work on the installation of the Casper zone controller and upgrade of the Cheyenne zone controller is progressing on schedule.

Installation of the building should be completed by the first of the year. The pre-fabricated structure is scheduled for delivery on Monday, December 11th. Electrical service work is in process and should be completed before the equipment arrives.

Activation of the electronics should be completed by the end of February. The electronics are being assembled in Motorola's factory. A WyoLink delegation will attend the factory staging and factory acceptance test process the week of December 18th. Following factory staging, the equipment will be prepared for shipment and should arrive in Wyoming during the first couple weeks of January. Installation will then proceed. Motorola Upgrade Operations personnel are scheduled to complete the upgrade and activation process.

RADIO INFRASTRUCTURE

The status of WyoLink radio equipment installations has not changed since my last report.

Phase-2 radio equipment has been designed, ordered, staged, and received here in Wyoming. Antenna and radio equipment installation is complete at 7 sites. Work at the remaining 11 sites is pending. The RF combining equipment for Phase-2 has been ordered based on progress of the Final Frequency Plan.

Activating Phase-2 sites is waiting on three issues: (1) Completion of the frequency plan and installation of RF combining equipment based on that plan; (2) Completion of Zone-2 and the upgrade of Zone-1 (*the site equipment was ordered with the upgraded version*); (3) Completion of upgrades to radio buildings and radio towers.

Phase-3 radio equipment has been designed, ordered, staged, and received here in Wyoming. Antenna and equipment installation at all sites is pending completion of upgrades to radio buildings and radio towers.

The above work is schedule for the coming construction season, with any work possible to be addressed during winter.

SITE CONSTRUCTION

The remaining Phase-2 sites should be ready for WyoLink installation early in the coming construction season, which will provide sufficient time for WyoLink activation during the summer. All of the new buildings have been delivered and are ready for electrical service connection. Tower structural issues that were identified during WyoLink antenna installation are being addressed.

Phase-3 sites should also be ready for WyoLink installation early in the coming construction season. All of the towers have been completed, except for Mount Pisgah. The new equipment buildings are being delivered. That process that may be impacted by weather — frozen ground is good for hauling the building but not for installing the electrical. This work should be completed with sufficient time for WyoLink activation during the summer.

Phase-4 site work is the subject of a separate agenda item. I will postpone comment.

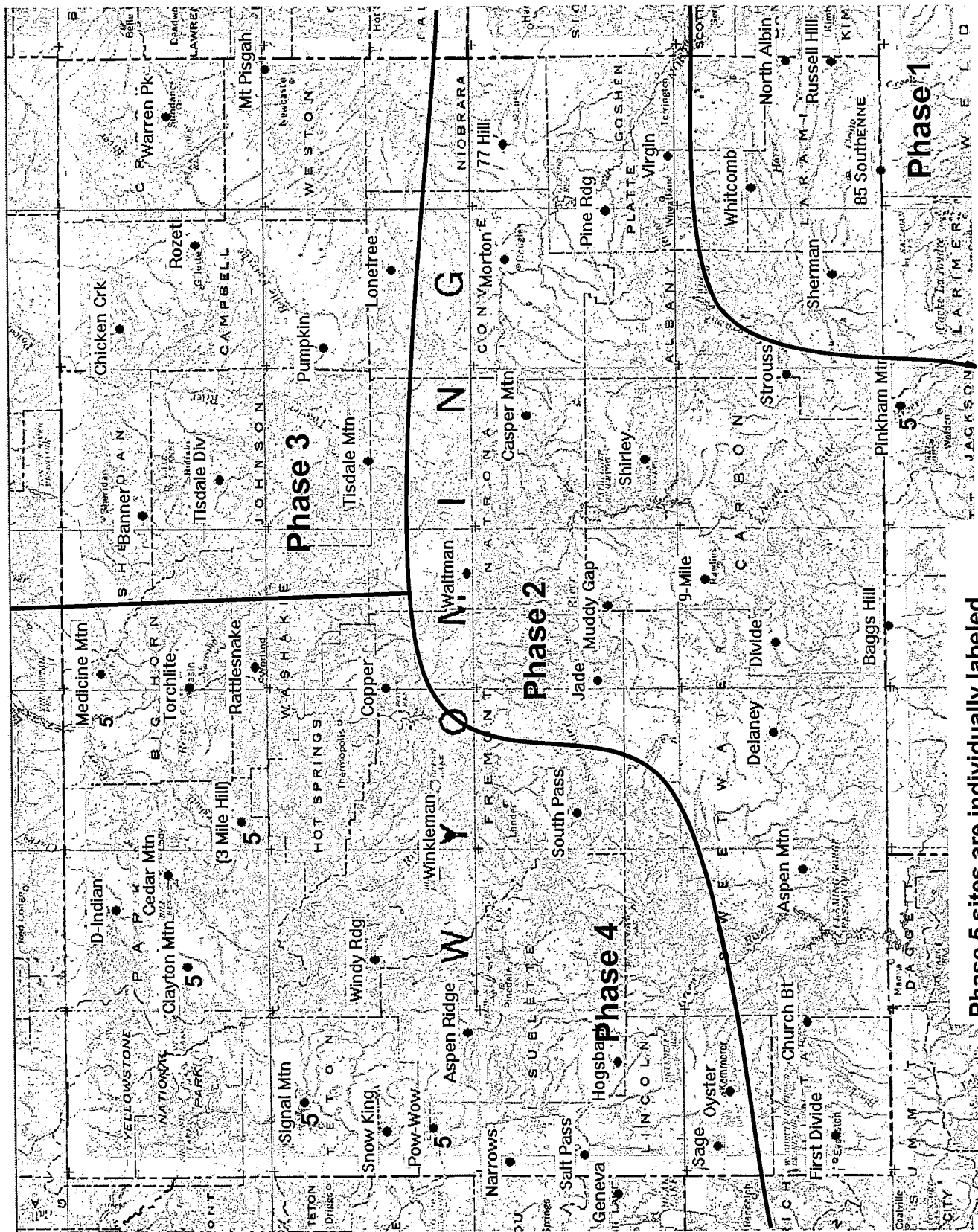
SITE ACQUISITION

I have been taking a more active role in tracking the site acquisition tasks. Monthly status meetings have been helping to identify issues and move the process forward.

An update of the Mount Pisgah radio site lease is the only issue remaining related to Phase-3. These private and public land matters are well in-hand and should not hinder the project.

Presently, lease application paperwork is in process for all Phase-4 sites, save one. Microwave path verification is required on the remaining site before the application is submitted to ensure the location is suitable.

Acquisition work is beginning on the Phase-5 sites. These sites were added in the course of the project to improve coverage. Acquisition work on these sites is in its preliminary stages, and as such, there are differing uncertainties associated with each site.



Phase 5 sites are individually labeled



*Wyoming's Statewide Public-Safety
Interoperable Radio Communications Systems*

Memo

Date: December 5, 2006
From: Tom Mahon, WyoLink Project Manager
To: WyoLink Stakeholders
Subject: Cost and Schedule Options for Project Completion

This document summarizes the relevant issues in weighing the proposal to contract Phase-4 WyoLink radio site development to Motorola.

This proposal is for radio site development in Phase-4 and does not impact work necessary to complete Phase-2 and Phase-3.

COMMON RISKS

The following risk factors are common to either approach and inherent in work of this kind.

1. Site acquisition issues are always a project risk factor. Delays in site leasing automatically delay construction and final deployment. Environmental or Archaeological issues could arise that would delay or prohibit development of a radio site. Application for one site is pending microwave path verification. This risk is mitigated by keeping this work on the critical path, at the highest priority.

The following items are variables best addressed when the specifics are clear rather than attempting to projected cost into the current proposal. Projected costs would by necessity be high to cover risk. Therefore, it is more cost effective for the Project to address these issues by change-order when the costs are accurately based on identified criteria.

2. There is a high risk that non-normal soil conditions will increase radio tower foundation requirements. This is a site-specific variable that cannot be quantified until geotechnical reports are reviewed and design impact evaluated.
3. Salt Pass will require road construction, the scope of which is presently unspecified. The actual requirements will be established when the site lease is completed. Without specifications, the cost cannot be included in either proposal.
4. Several sites may require removal of existing towers before new towers are constructed. This would mandate a temporary structure to maintain communications service. The details of those arrangements will be resolved during Detailed Design Review.

In identifying each of these risks / variables, the WyoLink Project will reserve contingency funds to address temporary structures as needed.

MOTOROLA BUILDS PHASE 4 RADIO SITES

SUMMARY

- Motorola supplies and manages radio site development with buildings, towers, and utility installation.
- Motorola installs microwave equipment procured by WyDOT from existing contracts. *(Per existing Motorola contract.)* WyDOT configures circuit parameters.
- Motorola installs WyoLink equipment based on the existing contract.

COST

- Motorola Radio Site Development (Change Order) \$ 7,453,402

Motorola utilized competitive bidding in formulating its proposal costs and selecting appropriate subcontractors.

Motorola costs reflect the selection of subcontractors with the qualifications and resources to address the development of 16 radio sites in a single short construction season. This aggressive schedule mandates fielding multiple crews simultaneously. With intense competition for qualified labor, out-of-state work crews will likely be required. A full-time Project Manager and Construction Supervisor will oversee the effort.

Motorola's scope includes additional project steps, design review, quality assurance, and incidental costs. These include: full construction drawings and design review; structural analysis of existing towers; access road at Rattlesnake Ridge; new site development at three sites with silt fence, swales, gravel compound, security fencing, and vegetation restoration; LP fuel tank at all sites; and final as-built drawings for all sites. All sites will be constructed to current R56 standards, which conform to TIA, IEEE, ANSI, and NEC codes.

Motorola's proposal also absorbs the risk of increasing materials costs.

FUNDING

- | | |
|--|----------------|
| ○ Motorola credit based on subscriber equipment sales | \$ 2,000,000 ✓ |
| ○ Motorola contract allocation for M/W assistance | \$ 1,450,000 ✓ |
| ○ WyDOT funds for site construction | \$ 3,143,903 |
| ○ Project funds (radio site & m/w enhancements activity) | \$ 859,499 |

SCHEDULE

- Phase 2 sites completed by November 2007 or earlier
- Phase 3 sites completed by November 2007 or earlier
- Phase 4 sites completed by November 2007
- Phase 5 and additional sites completed post-contract: during 2008 and thereafter.

RISKS

- The aggressive schedule requires WyDOT to complete site acquisition in time for the upcoming construction season. This will be a critical path issue and will require concerted effort in the intervening time.

BENEFIT

- Reduces project risk associated with radio site development tasks impacted by WyDOT Telecommunications staffing issues. The risk transfers from WyDOT to Motorola.
- WyDOT Telecommunication's staff will be able to focus on other crucial work.
- Provides an avenue to recover project time lost due to civil construction work delays, bringing the WyoLink project back on schedule.
- Transfers project risk from WyDOT to Motorola, in terms of schedule issues and materials cost increases.

WYDOT BUILDS PHASE 4 RADIO SITES

SUMMARY

- WyDOT procures and manages radio site development with buildings, towers, and utility installation.
- Motorola installs microwave equipment procured by WyDOT from existing contracts. *(Per existing Motorola contract.)* WyDOT configures circuit parameters.
- Motorola installs WyoLink equipment based on the existing contract.

COST

○ WyDOT Radio Site Project Budget	\$ 3,143,903
○ WyDOT "Absorbed Costs" (existing program resources)	\$ 880,000
○ Motorola Change Order to Extend Contract to 12/2008	\$ 1,015,550
Total	<hr/> \$ 5,039,453

WyDOT's cost estimate reflects extensive use of in-house labor and lowest-bid contractors producing deliverables on an extended schedule. An estimate of "absorbed costs" has been included, which considers costs not called out in the microwave project funding, such as travel, over-time, and staff costs.

WyDOT's cost estimate does not include: access road improvements; radio site compound development, with silt fences, swales, security fencing, and reseeding; LP fuel tank installation, with connection to generator and alarms; tower structural load analysis, and as-built site documentation packages. Inclusion of these items would increase cost.

Motorola's current contract ends December 2007. Since the implementation of sixteen (16) Phase 4 sites and closure of the project would slip into 2008, there will be additional costs. This change order would cover extending the Motorola project team and their support services costs for an additional year, and the escalation of equipment and installation costs beyond 2007.

FUNDING

- WyDOT funding of site construction \$ 3,143,903
- Project funds (radio site & m/w enhancements) \$ 1,015,550
- WyDOT "absorbed costs" are addressed by existing program resources.
- Motorola credit based on subscriber equipment sales (\$2,000,000.00) will be applied to other WyoLink development costs.

SCHEDULE

- Phase 2 sites completed by November 2007 or earlier
- Phase 3 sites completed by November 2007 or earlier
- Phase 4 sites completed by December 2008
- Phase 5 and additional sites completed post-contract: during 2009 and thereafter.

Risks

- WyDOT Telecommunication's shortage of qualified technical staff (30 % vacancy in Telecom today) could impact project work. Therefore, there may be additional delay beyond that estimated above.
- Intangible customer-relations consequences and public perception as a result of falling short of projected implementation schedule.
- Material and labor cost increases are not addressed in the cost estimate and could impact the budget.

BENEFIT

- Provides lowest-possible cost approach to radio site development.
- Provides more time for WyDOT Right-of-Way to process site acquisition leases and address environmental impact issues.



Dave Freudenthal
Governor

Steve DeCecco
Chairman

State of Wyoming

Public Safety Communications Commission

~ Annual Report to the Governor of the State of Wyoming ~

Mission Statement and Statutory Responsibilities

The mission of the Wyoming Public Safety Communications Commission (PSCC) is to develop recommendations for policy and guidelines, identify technology and standards, and coordinate intergovernmental resources to facilitate statewide wireless communications interoperability with emphasis on public safety.

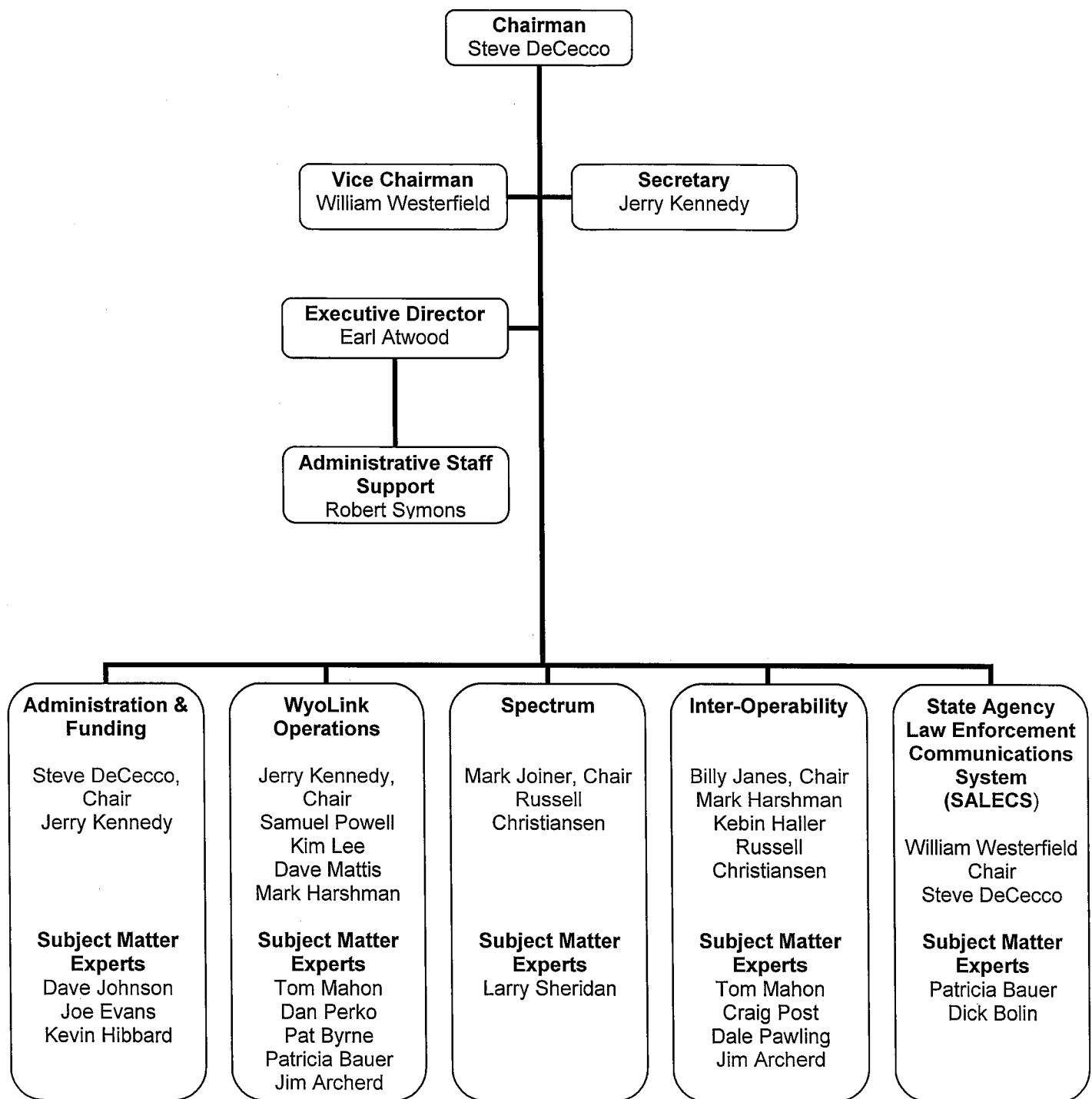
Wyoming Statute 9-2-1104 states the commission shall:

- (i) Work with the administrator of the information technology division of the department of administration and information and the department of transportation in an advisory capacity to promote the development, improvement and efficiency of public safety communications systems in the state.
- (ii) **Report in writing each year in October to the governor concerning any problems related to the installation, operation and maintenance of the system and shall make any recommendations it deems appropriate as part of the report.**
- (iii) Submit a plan for statewide system networking to the administrator of the information technology division for inclusion in the statewide telecommunications plan developed pursuant to W.S. 9-2-1026.1(a)
- (iv) In cooperation with participating federal agencies, establish and assess user fees upon any federal law enforcement agency electing to use and participate in the system.
- (v) Promulgate necessary rules and regulations governing system operation and participation and upon failure to comply with adopted rules and regulations, may suspend system use and participation by any participating and noncomplying public safety agency or private entity.
- (vi) Determine the participation of public safety agencies and private agencies in the wireless communications network.

Commission Members and Operating Structure

The PSCC is comprised of representatives appointed by the Governor from the following public safety agencies, professional associations, and State departments:

Representing	Name	Location
Wyoming Police Chief's Association	Billy Janes, Police Chief	Torrington
Wyoming Sheriff's Association	Dave Mattis, Sheriff	Big Horn County
Division of Criminal Investigation, Office of the Attorney General	Kebin Haller, Assistant Director	Cheyenne
Wyoming Game and Fish Department	Steve DeCecco	Green River
Wyoming Department of Transportation	Colonel Samuel Powell	Cheyenne
Wyoming Livestock Board	Jimmy Siler	Cheyenne
Department of State Parks and Cultural Resources	William Westerfield	Cheyenne
Wyoming Fire Chief's Association	Mark Harshman, Division Chief Casper Fire Department	Casper
Wyoming State Fire Marshal	Lanny Applegate, Director	Cheyenne
Wyoming Office of Homeland Security	Kim Lee, Division Chief	Cheyenne
The Public at Large	Robert J. Wyatt, Attorney	Sheridan
Wyoming Ambulance and Emergency Medical Services Association	Russell Christiansen	Casper
Municipal Government or a municipal government association	Neil Kourbelas, City Councilor	Rock Springs
County Government or county government association	Jerry Kennedy, Commissioner	Albany County
Wyoming Department of Health	Robert Dean	Cheyenne
Tribal Government or tribal government association	Doug Noseep	Fort Washakie
Federal Government or federal government association	Mark Joiner, US Bureau of Land Management	Lander



Wyoming PSCC Organization Chart
(effective 10/31/2006)

Achievements

The Public Safety Communications Commission (PSCC) and the WyoLink project have realized many accomplishments this past year:

- Ribbon cutting and kick-off of WyoLink Pilot Phase on May 15, 2006.
- WyoLink trunked infrastructure functionality meets the planned core requirements and was fully demonstrated and evaluated through the functional acceptance test plan. The five pilot phase radio sites performance was verified through coverage drive testing, mobile radio coverage in the pilot phase area exceeds the 95% requirement.
- Upgrade of the WyoLink operating system from Astro-25 version 6.5 to 7.2. Upgrade costs are within present budget, will provide more features, extend lifecycle and simplify system architecture, and offer lower long-term costs. Implementation will occur in the first quarter of 2007.
- Hosted a Federal Agency Interoperability Summit in Cheyenne attended by fifty-eight (58) people. Agencies represented include:
 - National Telecommunications and Information Administration – Boulder Labs
 - Department of Homeland Security-Wireless Management Office and Federal Partnership for Interoperable Communications,
 - National Law Enforcement and Corrections Technology Center
 - Alcohol Tobacco and Firearms
 - Department of the Interior (CIO, BIA, FWS, and NPS)
 - Mindbank – BIA
 - U.S. Forest Service
 - Federal Emergency Management Agency – Region 8 and MERS
 - Drug Enforcement Agency
 - Federal Bureau of Investigation
 - United States Department of Agriculture-APHIS
 - Department of Justice – Wireless Management Office
 - Utah Army National Guard
 - Cheyenne Weather Service
 - Department of Veteran Affairs
 - Immigration and Customs Enforcement
 - Motorola,
 - Wyoming Department of Transportation and WyoLink
 - U.S. Senator Enzi's Office
 - U.S. Senator Thomas' Office
 - Montana Public Safety Services Bureau
 - Wyoming Public Safety Communications Commission.
- Memorandum of Understanding between Wyoming Department of Transportation and Eastern Shoshone Joint Business Council. The MOU is to establish responsibilities and roles for collaborative radio telecommunications site planning and implementation on or near the Wind River Indian Reservation
- Quarterly meetings held in Cheyenne, Thermopolis and Riverton

Activities

Ongoing projects include:

- Rules Promulgation – The PSCC rules have been promulgated, the comment period has expired and a public hearing has been held. The rules are being reviewed per the comments submitted, with formal adoption anticipated by January 1, 2007.
- Dispatch Center Connectivity Grants – The Governor and Wyoming Legislature provided funding for local enhancements. A grant process has been developed and advertised. The grant applications from the local dispatch centers are due on December 31, 2006.
- Drafting policies, procedures, membership agreement and handbook for the users of the WyoLink system.
- Interoperability talkgroup development.
- ‘Train the trainer’ training for WyoLink end users
- Development of portable radio coverage solutions for Laramie County and policy for addressing similar concerns statewide.
- Develop cooperative agreements and Memorandum of Understandings with federal agencies for frequency sharing and WyoLink use.
- Publication of PSCC quarterly newsletters and updating PSCC and WyoLink policies and activities on the PSCC website at <http://pscc.wyoming.gov>

Commission Re-organization

On September 26, 2006 the Public Safety Communications Commission completed a re-organization of the commission at the quarterly meeting in Riverton, Wyoming. The new officers are: Steve DeCecco, Chairman; William Westerfield, Vice Chairman; and Jerry Kennedy, Secretary. Upon the appointments or re-appointments of Dave Mattis, Steve DeCecco, Jimmy Siler, Mark Harshman, Mark Joiner and Doug Noseep the PSCC representation fulfills the statutory requirement of seventeen (17) representatives.

Challenges

During the initial stages of the WyoLink Project, stakeholders agreed upon an approach to managing the uncertainties posed by such a large, complex project as a statewide public safety communications system. The PSMC plan proposed a six-year schedule for completing the system infrastructure, ending in year 2010. Opportunities for accelerating the schedule and potentially reducing the project costs were identified during contract negotiation with Motorola. This accelerated schedule was approved with the expectation that scheduling conflicts were likely to occur.

A philosophy for managing risk on the project was discussed at the September, 2004 PSCC meeting, at which time it was agreed that the project schedule may need revision as the project went ahead in order to deal with unanticipated problems. Under this philosophy, risks or challenges to the project would be resolved in the following order of priority: #1 – Scope, #2 – Budget, and #3 – Schedule. Consistent with that approach, following is a discussion of current challenges to the project, their status and planned mitigation.

Frequency Plan

Building a statewide radio system in the Very High Frequency (VHF) band has many advantages and has one distinct challenge – frequency allocation. For the past year Motorola has been working on the frequency engineering and plan for WyoLink. Some of the challenges presented to the frequency plan include having to match the plan with Wyoming's neighboring states and the current allocation of VHF frequencies within Wyoming. Radio frequency licenses will not be issued if there is interference with adjoining states or licensees. There is limited spectrum available in the VHF band and all Federal Communications Commission (FCC) pools are being explored for use in Wyoming. The pools include not only public safety but also industrial/business, marine and private land mobile paging. Using frequencies outside of the public safety pool will require authorization from the FCC.

Because of the frequency challenge within the FCC VHF spectrum, the PSCC has been working with federal agencies on frequency sharing with them. The Department of the Interior and the PSCC have agreed to the terms of a Memorandum of Understanding (MOU) on frequency sharing. The signing of this MOU is scheduled for December, 2006. The PSCC is also working with the Federal Partnership for Interoperable Communications (FPIC) on frequency sharing with federal agencies other than the Department of the Interior. Having the prospect of frequency sharing with federal agencies, Motorola is striving to complete the frequency plan in November 2006. Completion of the frequency plan is directly related to the completion of all of the radio sites for the WyoLink system.

Construction Schedule

The construction of WyoLink tower infrastructure is currently behind schedule. The construction schedule is dependent upon the State having buildings and towers prepared at the various tower sites for the installation of the radio frequency equipment by Motorola. In 2005, one tower contractor responsible for preparation of Phase 2 and Phase 3 sites filed bankruptcy and defaulted on its construction contract in the middle of the construction season. Due to a shortage of other qualified contractors in the region, no other contractors could be arranged in 2005 and this work had to be deferred until the next construction season.

This problem has been compounded by difficulties with recruitment and retention of WyDOT radio technicians. The expanded workload and inability to fill critical positions has limited the progress they have been able to make in preparing sites for Motorola to install, exacerbating the site schedule problem. Options for bringing the schedule in line are further limited by short construction seasons in high elevations.

Eighteen (18) radio sites in construction Phase 2 and ten (10) sites in Phase 3 required site work by the State before Motorola can proceed with WyoLink equipment installs. For Phase 2, eight (8) sites have the towers, antennas and radio frequency equipment installed. The remaining ten (10) Phase 2 sites have some portion of work remaining to complete tower construction or structural analysis, install equipment buildings and/or generators. Three (3) sites have the radio frequency equipment installed on the ground and are on hold until the tower and/or antenna work is completed.

For Phase 3, design and site acquisition is completed for all ten (10) sites. Completion of the buildings and tower upgrades must be accomplished before installation of the WyoLink equipment can proceed. New towers have been constructed and concrete pads for pre-built buildings have been poured at seven (7) of the ten (10) sites. All pre-built buildings are completed and delivery is currently being

scheduled. Three (3) of the Phase 3 sites are existing sites that require retrofit, not yet completed. According to the original project schedule Phase 4 site development is scheduled to begin in early 2007.

In 2006, The State contracted another tower contractor to prepare Phase 2 and Phase 3 radio sites for the installation of the radio equipment by Motorola. The State is also negotiating for "turnkey" site preparation services by Motorola for Phase 4. This would involve Motorola completing all tower and building preparation and installation of radio equipment while the State continues its work on Phase 2 and Phase 3 sites. Adjusting the resource strategy to include "turnkey" site preparation carries its own cost and schedule risks, but should mitigate some of the project delays described above.

The original project plan called for 57 sites statewide, with a contingency for several additional sites if needed to meet coverage targets. The site plan has been revised to correct mobile coverage gaps in the original plan. Phase 5 has been added to the project plan to account for changes that will assure mobile radio coverage in deficient areas. Some challenges exist in these areas due to complexities or delay in obtaining access to federal lands, or due to accessibility problems with some of the original proposed locations. For these reasons it is expected that some of these additional or revised sites will have to be completed as 2008 enhancements.

The attached revised WyoLink timeline chart reflects the changes and challenges to the completion schedule. Taking all factors into consideration, it appears the completion of the WyoLink project will extend past the projected completion date of 2007. The project timeline is somewhat less a concern than the potential for additional costs that are not covered by existing appropriations or grants. There may be added costs to the WyoLink project resulting from greater reliance on contracted resources, but at this time they are not completely estimated. Some contingency funds are available within the project budget. The PSCC supports the continuation of out-sourcing and sub-contracting of the site development work to regain the schedule, so long as the existing budget contingencies will cover any of resulting cost increases.

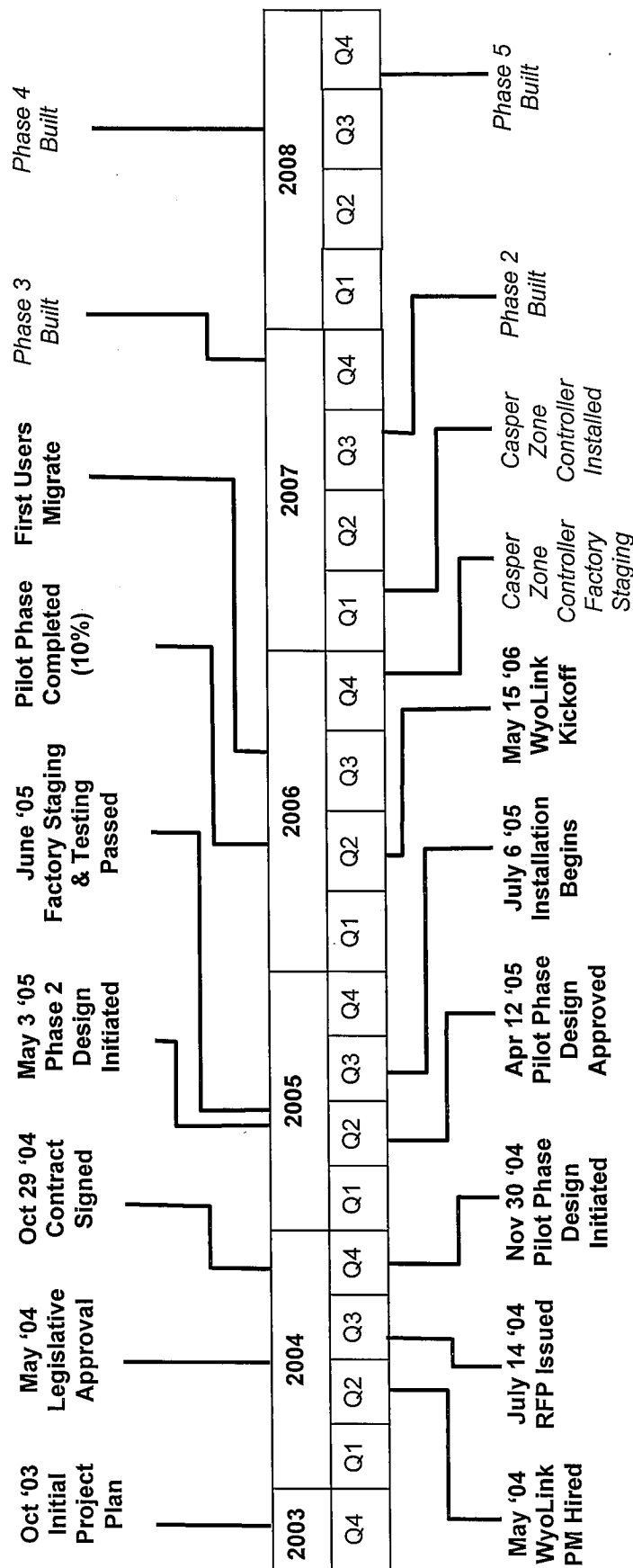
Portable radio coverage

Portable radio coverage with WyoLink has become a major discussion point with many local agencies. A WyoLink project goal has been to improve statewide mobile radio coverage for public safety users within the State. Where improvement is not economically feasible, the project is committed to providing mobile radio coverage equal to the existing coverage.

In balancing system requirements and system cost, the Wyoming Public Safety Mobile Communications (PSMC) Steering Committee referenced the 95% coverage target on the performance of mobile radios. The WyoLink radio system will provide coverage for portable radios as a function of reaching the mobile radio target. Portable radio coverage will not be as extensive as mobile radio coverage but should be better than the current portable radio coverage in most areas. In some cities, portable radio coverage and in-building penetration is paramount and the public safety officials are expressing concerns that WyoLink will not meet their needs. As the WyoLink system is constructed, the coverage provided for portable radios will be evaluated and compared against existing portable radio coverage. Testing of a given area will be conducted and evaluated upon optimization of all WyoLink sites that could impact coverage for that area.

A portable radio coverage test has been completed in Laramie County and Cheyenne, the WyoLink pilot phase. Comparisons have been made between the current law enforcement, fire department and WyoLink systems. The WyoLink Operations Work Group, WyoLink project team and Motorola are working with the Laramie County agencies to determine solutions and costs for improving in-building and portable radio coverage.

Revised Estimated WyoLink Timeline



WyoLink Phases

- Pilot Phase – Master Controller, Laramie County, Platte County, Goshen County and Albany County – 5 Radio Sites
- *Phase 2 – Platte County, Goshen County, Niobrara County, Converse County, Natrona County, Albany County, Carbon County, Sweetwater County, Uinta County and Casper Zone Controller – 18 Radio Sites
- *Phase 3 – Weston County, Crook County, Campbell County, Johnson County, Sheridan County – 10 Radio Sites
- *Phase 4 – Fremont County, Washakie County, Hot Springs County, Big Horn County, Park County, Sublette County, Lincoln County, Teton County – 18 Radio Sites
- *Phase 5 – Additional sites for coverage improvements – 5 Radio Sites

* This timeline reflects an accelerated schedule and provides an estimated timeline for completion. The PSMC Plan estimated a completion by 2010. The PSCC and WyoLink are committed to complete the build-out within the current budget, adjusting the timeline as needed.